

## EXECUTIVE SUMMARY OF DRAFT TRAFFIC REPORT MAY 1, 2013<sup>1</sup>

Design Year 2040 traffic forecasts for the Final Environmental Impact Statement for the Tri-County Parkway (TCP) Location study are based on a combination of traffic count data for existing (2013) conditions and information gathered from the latest version of the Metropolitan Washington Council of Governments (MWCOG) regional travel demand model (Version 2.3 Build 39, obtained from MWCOG on November 1, 2012). The travel demand model includes population and employment forecasts (MWCOG's Round 8.1 Cooperative Forecasts) and transportation network updates to reflect the region's 2012 Financially Constrained Long Range Plan (CLRP). Of particular note, the 2012 CLRP update includes the Manassas National Battlefield Park Bypass (MNBPB), a proposed four-lane parkway around the north side of Manassas National Battlefield Park, connecting to US 29 at points west and east of the Park. Accordingly, the Bypass is assumed in both the No-Build Alternative and the TCP Build Alternative analysis. With the construction of the TCP and MNBPB, as per agreements under development between VDOT and the National Park Service, US 29 and VA 234 would be closed to through traffic through the Park.

Findings from the 2040 travel demand modeling are summarized below. The attached table and graphics provide additional details.

- The TCP would accommodate approximately 45,000 to 61,000 vehicles per day (vpd), depending on the segment.
- Without the TCP in place, traffic on VA 659 (Gum Spring Road) would be 70% to 203% higher depending on the segment, under the TCP No-Build Alternative than under the Build Alternative. On US 15, traffic under the No-Build Alternative would be 11% to 20% higher depending on the segment, than under the Build Alternative. On VA 28, traffic under the No-Build Alternative would be 1% to 2% higher depending on the segment, under the No-Build Alternative than under the Build Alternative.
- Construction of the TCP is not expected to have a large impact on I-66. Under the No-Build Alternative (which does assume the MNBPB to be in place and restriction of Routes 29 and 234 to traffic through the Park), traffic volumes on I-66 would be 1 to 11 % higher than volumes under the Build Alternative.
- A representative sample of intersections through the study area was analyzed to study the effect of the TCP on local streets. Due to overall growth in traffic between existing conditions and 2040, several of the analyzed locations were found to experience worse operations in the future compared to the existing conditions. In many cases, however, the operations at the intersections would improve somewhat with the addition of the TCP as traffic would shift from local roads to the new facility.

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<sup>1</sup> The preliminary draft of the *Traffic Modeling and Analysis Technical Memorandum* will be updated and finalized in accordance with review comments on the draft from VDOT. Many of the comments relate to the intersection turning movement forecasts, vehicle class assumptions, and the overall forecasts for the interim year.

## SECTION 3

### FINDINGS AND ANALYSIS OF RESULTS

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#### 3.1 EXISTING AND FORECAST TRAFFIC VOLUMES

Existing and design year traffic volumes were developed using the data sources and methodology as presented in Section 2. **Table 6** shows the daily volumes for the existing and design year No-Build and Build conditions for the roadway links within the Traffic Analysis Area, and **Figure 3**, **Figure 4**, and **Figure 5** present the daily and peak hour intersection turning movement volumes for existing, No-Build, and Build conditions, respectively.

**Table 6**, **Figure 4**, and **Figure 5** indicate that the proposed Tri-County Parkway would serve 44,000 and 61,000 vehicles per day; serving travel demands as part of the network grid that encompasses both north-south and east-west facilities. By providing an alternative roadway to accommodate north-south demand, it would provide relief to both US 15 and VA 659 (Gum Spring Road) which would be overburdened by the year 2040. The proposed roadway would have lesser effects on east-west traffic volumes, indicating, for the most part, that these east-west routes do not provide attractive connections to alternative north-south routes (based on distance to other routes and/or heavy congestion on east-west routes by 2040).

**Table 6. Existing, No-Build, and Build Daily Traffic Volumes**

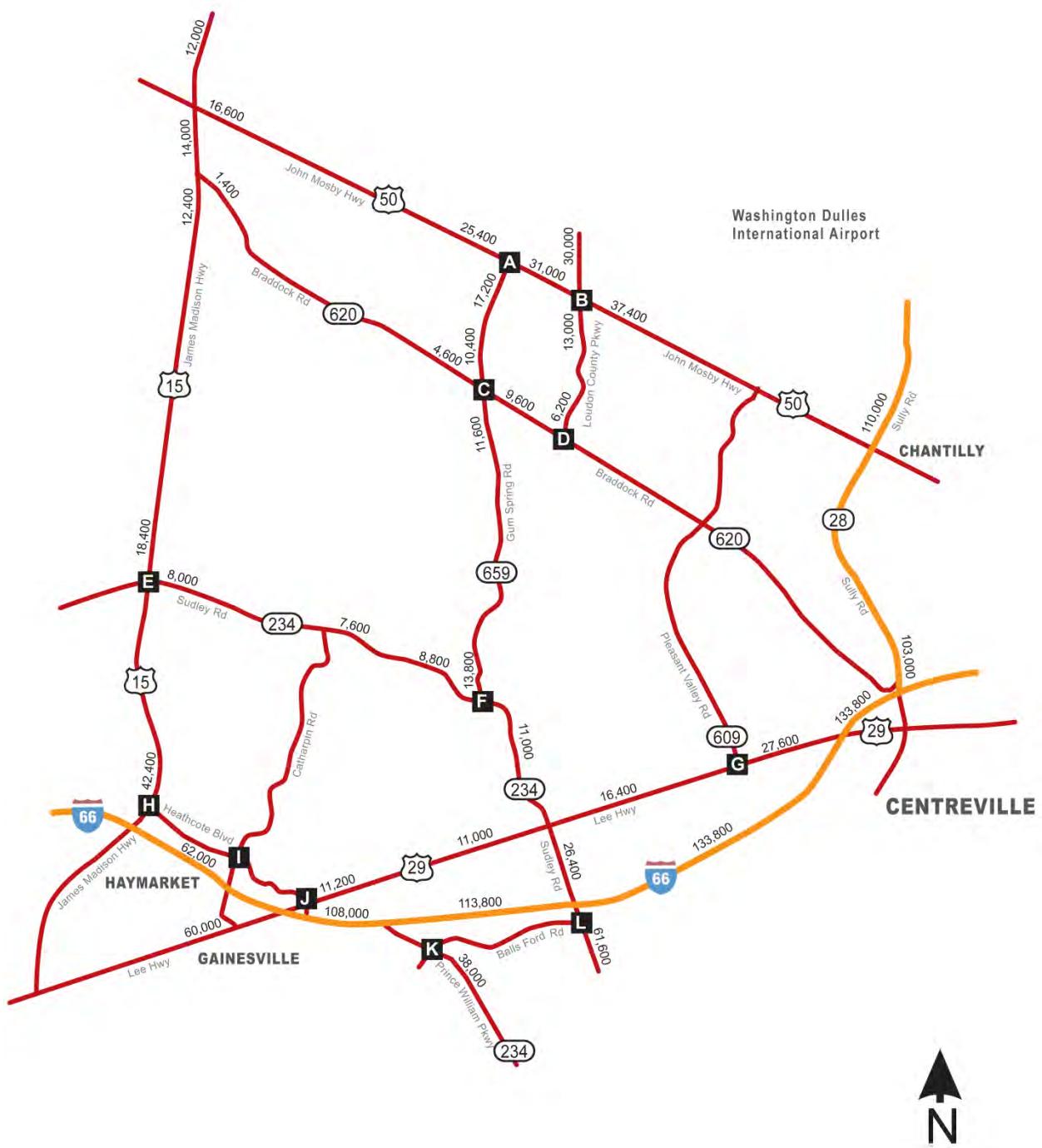
Facility / Location	Existing 2013	No-Build 2040		Build 2040		
	Volume	Volume	Growth (vs 2013)	Volume	Growth (vs 2013)	Difference (vs No-Build)
<i>Tri-County Parkway (TCP)</i>						
Between US 50 and VA 620	-	-	-	44,600	-	-
Between VA 620 and VA 234	-	-	-	48,800	-	-
Between VA 234 and US 29*	-	32,600	-	61,000	-	87%
Between US 29 and I-66	-	-	-	55,600	-	-
<i>VA 234 Bypass (Prince William Parkway)</i>						
South of Balls Ford Rd	38,000	55,000	45%	63,800	68%	16%
<i>US 15</i>						
North of US 50	12,000	16,600	38%	16,800	40%	1%
South of US 50	14,000	23,000	64%	20,600	47%	-10%
South of Braddock Rd	12,400	16,000	29%	13,600	10%	-15%
North of VA 234	18,400	22,000	20%	18,400	0%	-16%
North of Heathcote Blvd	42,400	51,200	21%	46,000	8%	-10%
<i>VA 659 (Gum Spring Road)</i>						
South of US 50	17,200	30,200	76%	17,800	3%	-41%
North of Braddock Rd	10,400	22,400	115%	7,400	-29%	-67%
South of Braddock Rd	11,600	25,000	116%	12,000	3%	-52%
North of VA 234	13,800	25,200	83%	12,400	-10%	-51%
<i>Loudoun County Parkway</i>						
North of US 50	30,000	55,800	86%	53,200	77%	-5%
South of US 50	13,000	25,000	92%	21,400	65%	-14%
North of Braddock Rd	6,200	14,400	132%	10,800	74%	-25%
<i>VA 28</i>						
North of US 50	110,000	172,800	57%	171,000	55%	-1%
North of I-66	103,000	185,400	80%	181,000	76%	-2%
<i>US 50</i>						
East of US 15	16,600	27,400	65%	27,600	66%	1%
West of VA 659	25,400	45,600	80%	41,800	65%	-8%

**Table 6. Existing, No-Build, and Build Daily Traffic Volumes**

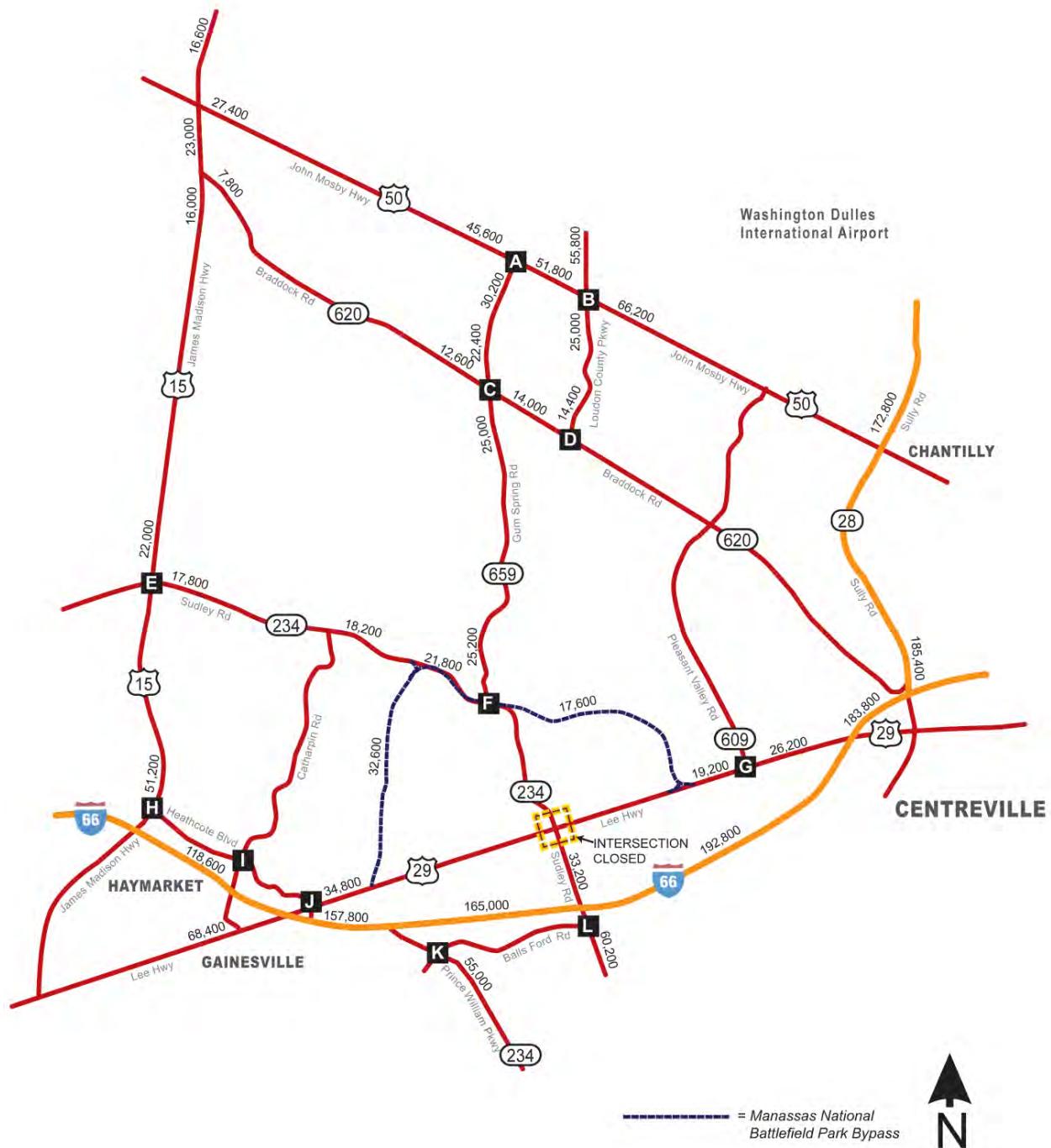
<b>Facility / Location</b>	<b>Existing 2013</b>	<b>No-Build 2040</b>		<b>Build 2040</b>		
	<b>Volume</b>	<b>Volume</b>	<b>Growth (vs 2013)</b>	<b>Volume</b>	<b>Growth (vs 2013)</b>	<b>Difference (vs No-Build)</b>
Between VA 659 and Loudoun County Pkwy	31,000	51,800	67%	49,200	59%	-5%
East of Loudoun County Pkwy	37,400	66,200	77%	65,400	75%	-1%
<b>VA 620 (Braddock Rd)</b>						
East of US 15	1,400	7,800	457%	9,200	557%	18%
West of VA 659	4,600	12,600	174%	8,000	74%	-37%
East of VA 659	9,600	14,000	46%	12,800	33%	-9%
<b>VA 234 (Sudley Rd)</b>						
East of US 15	8,000	17,800	123%	17,400	118%	-2%
West of VA 705 (Sanders Ln)	7,600	18,200	139%	20,400	168%	12%
Between Pageland Ln and VA 659	8,800	21,800	148%	22,800	159%	5%
Between VA 659 and US 29	11,000	17,600	60%	16,200	47%	-8%
Between US 29 and I-66	26,400	33,200	26%	33,200	26%	0%
South of Balls Ford Rd	61,600	60,200	-2%	63,200	3%	5%
<b>US 29</b>						
West of I-66	60,000	68,400	14%	73,600	23%	8%
Between I-66 and Pageland Ln	11,200	34,800	211%	37,800	238%	9%
Between Pageland Ln and VA 234	11,000	0	-100%	0	-100%	-
Between VA 234 and VA 609	16,400	19,200	17%	18,400	12%	-4%
Between VA 609 and I-66	27,600	26,200	-5%	25,000	-9%	-5%
<b>I-66</b>						
Between US 15 and US 29 (Gainesville)	62,000	118,600	91%	114,200	84%	-4%
Between US 29 (Gainesville) and VA 234 Bypass/Future TCP	108,000	157,800	46%	142,400	32%	-10%
Between VA 234 Bypass/Future TCP and VA 234 Business	113,800	165,000	45%	162,600	43%	-1%
Between VA 234 Business and US 29 (Centreville)	133,800	192,800	44%	189,600	42%	-2%
Between US 29 (Centreville) and VA 28	133,800	183,800	37%	182,000	36%	-1%

\* Co-located with the Manassas National Battlefield Park Bypass in the No-Build condition.

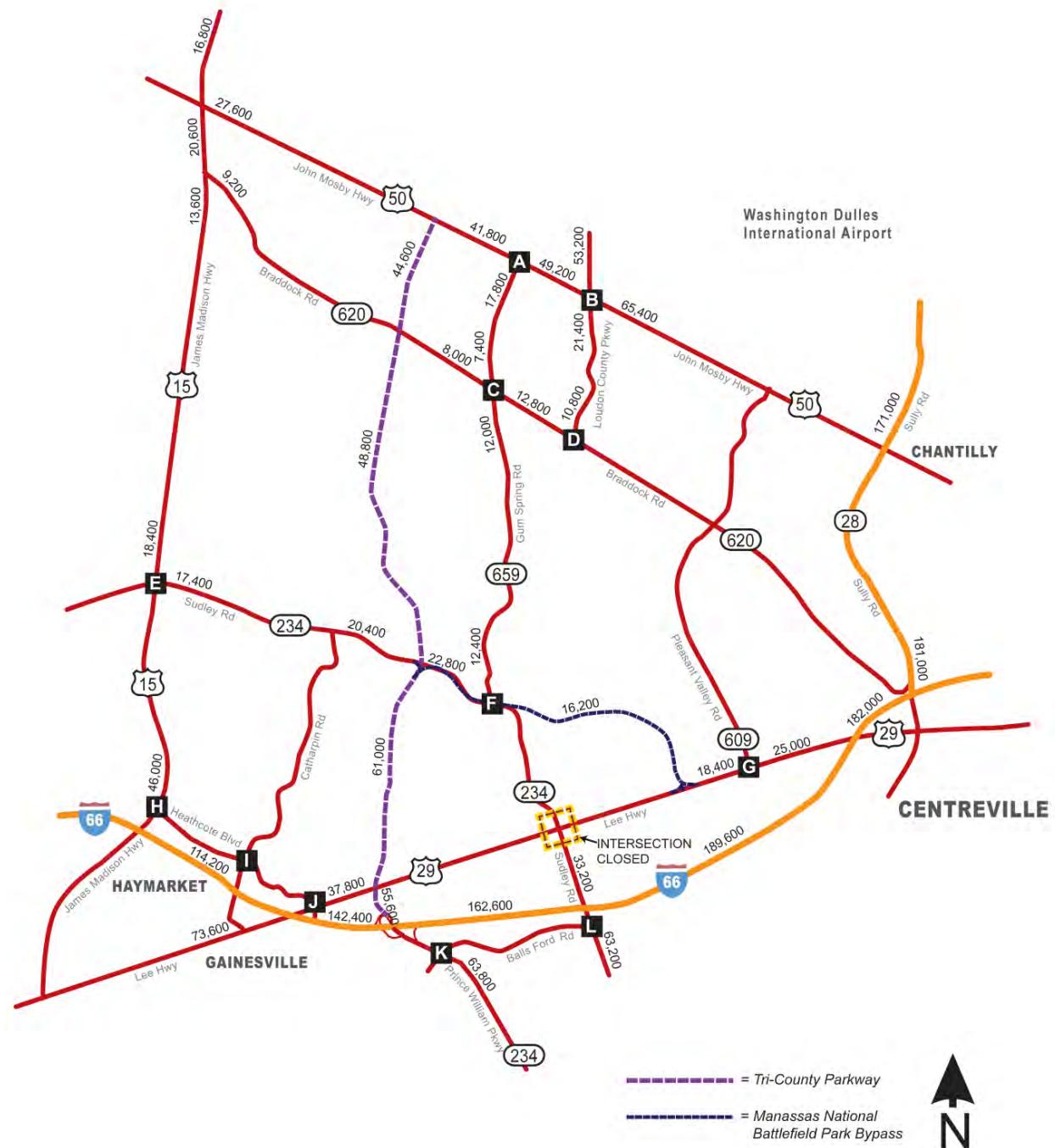
Note: The Manassas National Battlefield Park Bypass is included in both the No-Build and Build conditions.



**Figure 3A. Existing (2013) Volumes: Traffic Analysis Area Daily Bi-Directional Counts**



**Figure 4A. No-Build (2040) Volumes: Traffic Analysis Area Daily Bi-Directional Counts**



**Figure 5A. Build (2040) Volumes: Traffic Analysis Area Daily Bi-Directional Counts**